

Amendments to the Drawings

The attached sheet of drawings includes a new Fig. 1, which replaces the first sheet of drawings in the original application. The orifice 30 has been labeled in the revised drawing. The annotated sheet shows the drawing change in red.

Attachments: One replacement sheet and one annotated sheet showing the drawing change.

REMARKS

The amendment does not involve new matter. The drawing change simply adds a reference number for the secondary orifice 30, already discussed in the specification.

Examiner Kramer is thanked for the courtesy of the telephone interview with Applicants' below signed attorney on December 14, 2006. The following is noted regarding the interview. Claims 28 and 36 were discussed during the interview. U.S. Patent No. 4,586,569 (Hyde) and U.S. Patent No. 4,057,072 (Cook) were discussed. No amendments were presented or discussed. The general thrust of the principal argument presented is included in the remarks that follow. The other items discussed during the interview were an explanation of the difference between modifying the spring rate for a given spring verses changing the compression on the spring, and the fact that Applicants recognize that there is prior art that teaches methods of modifying spring rates, such as by shorting some of the coils in a spring. While the Examiner indicated that the rejection in the outstanding Office Action had probably been overcome, he indicated that additional searching would have to be done before he could allow the claims.

In the outstanding Office Action, claims 28, 31, 33 and 35 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 4,586,569 (Hyde). This rejection is respectfully traversed. Claim 28 calls for a method of preparing a coil spring for use in a pressure relief valve and requires two steps:

- a) measuring the spring rate of the coil spring and;
- b) modifying the spring so as to modify its spring rate to be within $\pm 2\%$ of a target spring rate.

The Office Action takes the position that in Hyde the spring rate is measured and "can be modified by removing a portion of the spring." The Office Action cites the Abstract for support for this proposition. The Office Action also suggests that by removing elements 152 and 154, material is removed from the outside diameter of the spring. However, elements 152 and 154 of Hyde are spacer members, and are only used to change the compression on the spring. (See col. 5, lines 37-43.) These elements are not even part of the spring 138. There is no teaching or suggestion in Hyde to either measure the spring rate of any spring, or to remove a portion of the

spring 138. Claim 31 requires the spring rate to be modified by having a portion of the surface of the spring removed. Claim 33 requires the material be removed from the outside diameter of the coil spring. There is no teaching or suggestion in Hyde of modifying a coil spring rate by having a portion of the surface of the coil spring removed, let alone removed from its outside diameter.

In the outstanding Office Action, claims 28, 31, 33 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,057,072 (Cook) in view of Hyde. This rejection is respectfully traversed.

The Office Action takes the position that in Cook the spring rate is also measured and “can be modified by removing a portion of the spring.” The Office Action cites col. 3, lines 30-40 for support. However, this section of Cook addresses the benefits of using conical spring washers. There is a discussion of removing or adding conical spring washers to provide a varying bias, but there is no teaching or suggestion in Cook to either measure the spring rate of any spring, let alone a coil spring as required by claim 28, or to remove a portion of the spring. There is a coil spring in Cook, spring 19, but there is no teaching or suggestion of measuring the rate of the coil spring, or modifying the rate of the coil spring. The Office Action states, “By removing a spring washer, material is removed from the outside diameter.” This statement is traversed. First, it is not seen how removing a spring washer would remove material from the outside diameter of a spring. More importantly, this has nothing to do with a coil spring, which is what claims 28, 31 and 33 require.

In short, Cook does not suggest either of the steps required in claim 28. Since these steps are also missing from Hyde, even if Cook and Hyde were somehow combined, the combination would not have the limitations of claim 28, let alone the further limitations in claims 31 and 33.

Finally, there is no suggestion in either Cook or Hyde of taking the coil spring, measuring its spring rate, modifying its spring rate, and then using the spring to make a pressure relief valve, as required by claim 36.

Thus, all the claims under consideration in the application are allowable over the cited prior art. Further, since claim 28 is a generic claim, the allowability of claim 28

requires the species restriction to be withdrawn, and all claims dependent on claim 28 should be brought back into consideration and allowed.

Respectfully submitted,

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Annotated Sheet

